CLAIMS:

1.   A method for performing a scheduling algorithm with minimum resource scheduling in a mobile communication system, comprising the steps of:

scheduling (10) allocation units for a user or service in a scheduling frame,

checking (20) whether the allocation units scheduled for a user or service in a particular scheduling frame meet at least one resource constraint, and

releasing (40) the allocation units scheduled for a user or service for that particular scheduling frame based on the result of the checking step for the resource constraint.

2.   The method according to claim 1, wherein the scheduling step (10) includes considering at least one of the following scheduling parameters channel condition, amount of data available for transmission to a specific user, quality of service, delay, data rate and carrier to interference ratio.

3.   The method according to claim 1 or 2, wherein the scheduling frame has at least one of a time division, frequency division or code division frame structure.

4.   The method according to one of claims 1 to 3, wherein at least one resource constraint is a user or service based requirement.

5.   The method according to one of claims 1 to 4, wherein at least one resource constraint is a scheduling frame based requirement.

6.   The method according to one of claims 1 to 5, wherein at least one resource constraint is defined based on a proportion of the available scheduling frame resources.

7.   The method according to one of claims 1 to 6, wherein at least one resource constraint is represented by a minimum number of scheduled allocation units for the user or service.

8. The method according to one of claims 1 to 7, wherein the allocation units have a quantity of one of transmittable information bits, internet protocol packets, code blocks or modulation symbols.

9. The method according to one of claims 1 to 8, further comprising the step of checking (30) whether at least one other resource constraint is not violated by releasing allocation units and releasing the allocation units scheduled for a user or service only if the other resource constraint is not violated by such release.

10. The method according to claim 9, wherein the step of determining the violation of at least one other constraint comprises determining a quality of service parameter such as a maximum allowable delay or long-term data rate.

11. The method according to one of claims 1 to 10, further comprising the step of rescheduling the released allocation units to another user or service for that particular frame.

12. The method according to one of claims 1 to 11, further comprising the step of signaling to the user the result of the scheduling algorithm, in particular whether allocation units are released.

13. The method according to claim 12, wherein the signaling is transmitted in an associated control channel.

14. The method according to one of claims 1 to 13, wherein the steps of checking and releasing allocation units for all users or services by the scheduling algorithm are carried out in a time sequential manner.

15. A scheduler in a mobile communication system for performing a scheduling algorithm with minimum resource scheduling, comprising:

    means (2) for scheduling allocation units for a user or service in a scheduling frame,

    means (4) for checking whether the allocation units scheduled for a user or service in a particular scheduling frame meet at least one resource constraint, and

means (4) for releasing the allocation units scheduled for a user or service for that particular scheduling frame based on the result provided by the means for checking the resource constraint.

16. The scheduler according to claim 15, further comprising means (4) for determining whether at least one other resource constraint is not violated by releasing allocation units and releasing the allocation units scheduled for a user or service only if the other resource constraint is not violated by such release.

17. The scheduler according to claim 15 or 16, further comprising means (6) for signaling to the user the result of the scheduling algorithm, in particular whether allocation units are released.

18. The scheduler according to one of claims 15 to 17, further comprising means for rescheduling the released allocation units to another user or service for that particular frame.

19. A base station comprising a scheduler according to one of claims 15 to 18.

20. A mobile terminal comprising a scheduler according to one of claims 15 to 18.

21. A mobile communication system comprising a transmitter and a scheduler according to one of claims 15 to 18 and a receiver, the receiver further comprising means for processing information on the result of the scheduling algorithm and

   means for shutting down at least part of its receiving circuitry for the duration of a scheduling frame for which no allocation units are scheduled to the receiver.

22. A mobile communication system comprising a scheduler according to one of claims 15 to 18 and a transmitter, the transmitter further comprising means for processing information on the result of the scheduling algorithm and

   means for shutting down at least part of its transmitting circuitry for the duration of a scheduling frame for which no allocation units are scheduled to the transmitter.